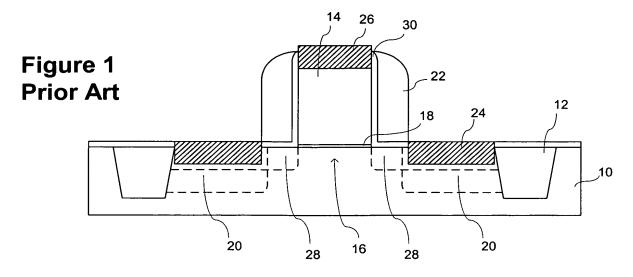
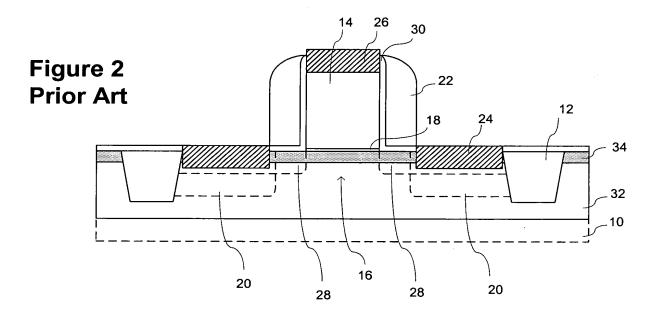
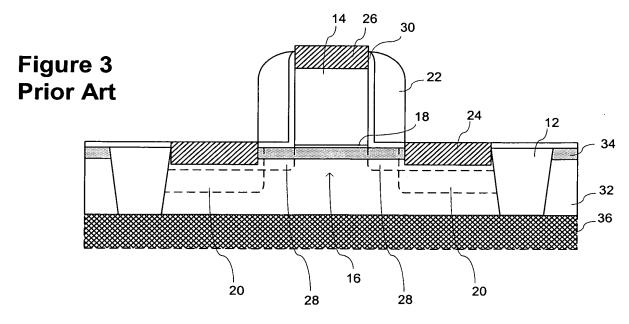
STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT

Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 1 of 13







STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick – 039153-0688 FOLEY & LARDNER – (310) 277-2223 Sheet 2 of 13

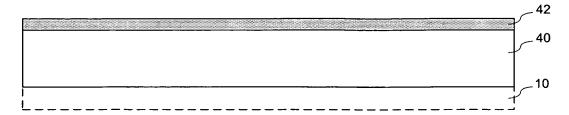


Figure 4a

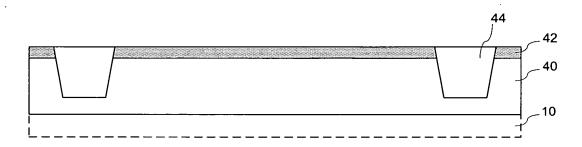


Figure 4b

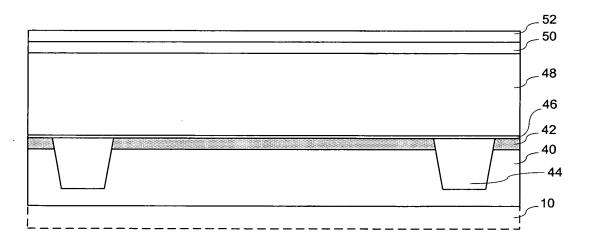


Figure 4c

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 3 of 13

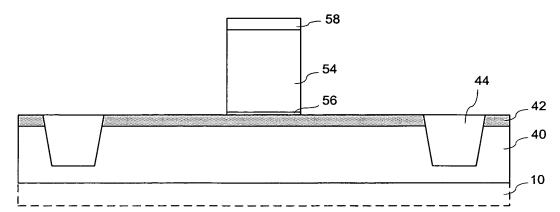


Figure 4d

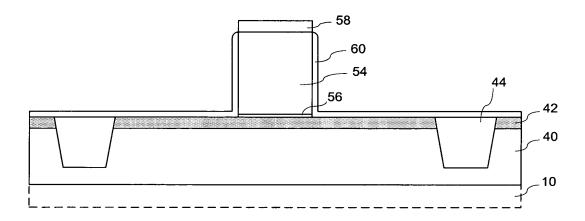


Figure 4e

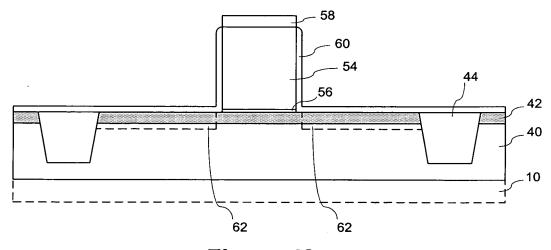


Figure 4f

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick – 039153-0688 FOLEY & LARDNER – (310) 277-2223 Sheet 4 of 13

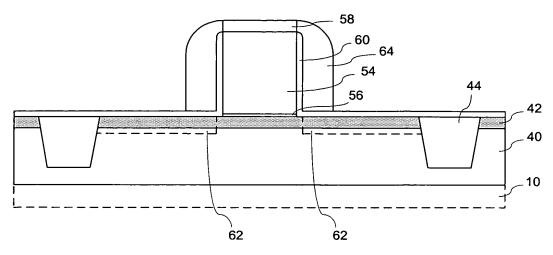


Figure 4g

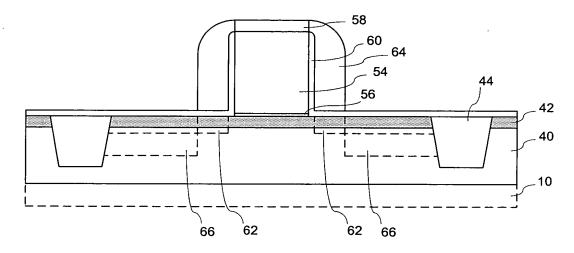


Figure 4h

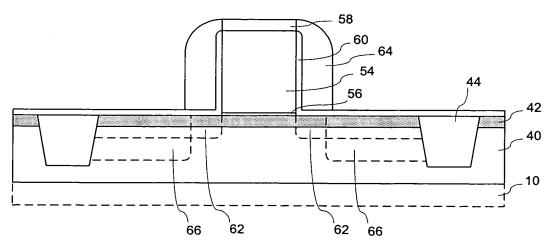


Figure 4i

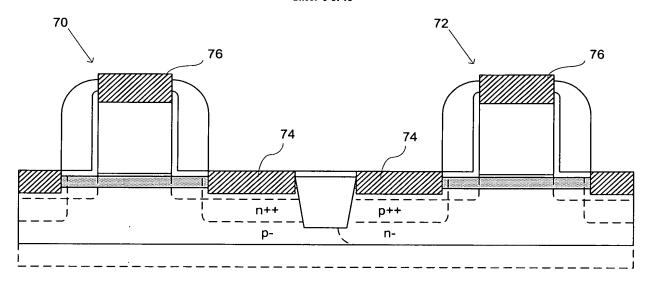


Figure 5a

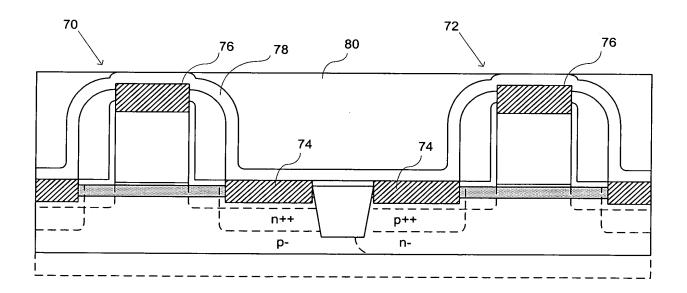


Figure 5b

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attomey: Ronald Coslick – 039153-0688 FOLEY & LARDNER – (310) 277-2223 Sheet 6 of 13

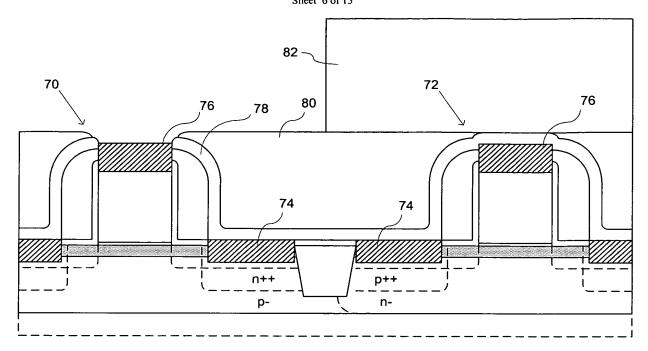


Figure 5c

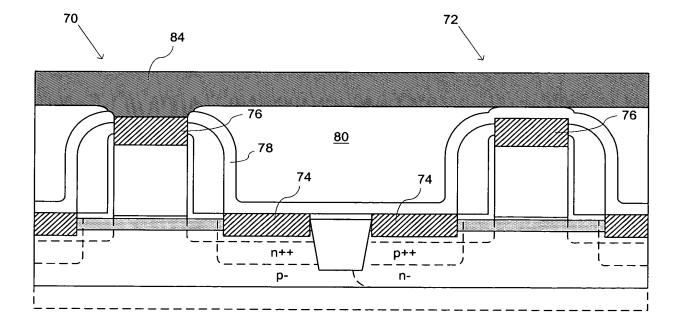


Figure 5d

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 7 of 13

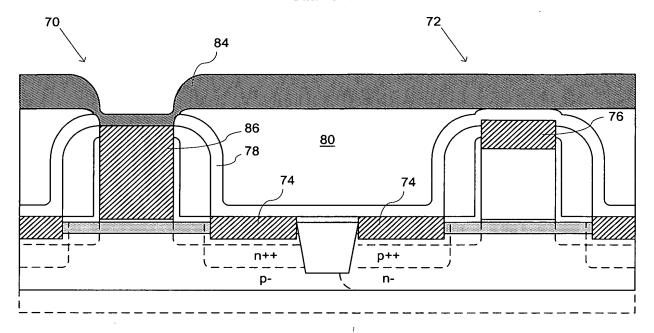


Figure 5e

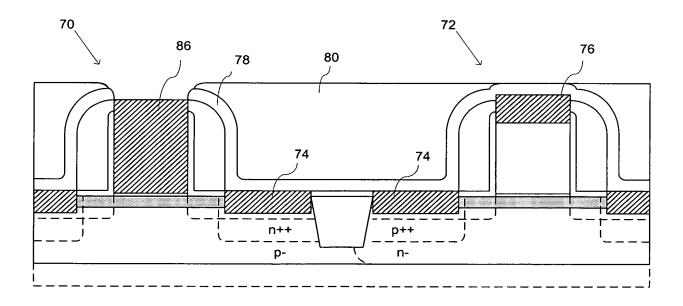


Figure 5f

Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 8 of 13

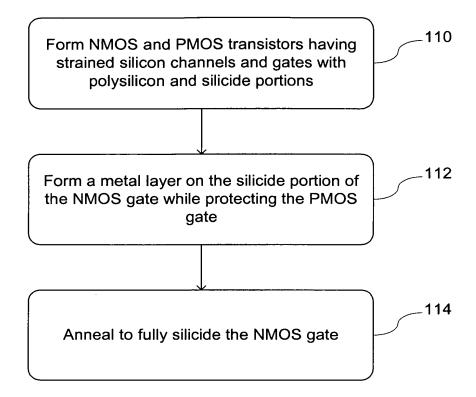


Figure 6

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick – 039153-0688 FOLEY & LARDNER – (310) 277-2223 Sheet 9 of 13

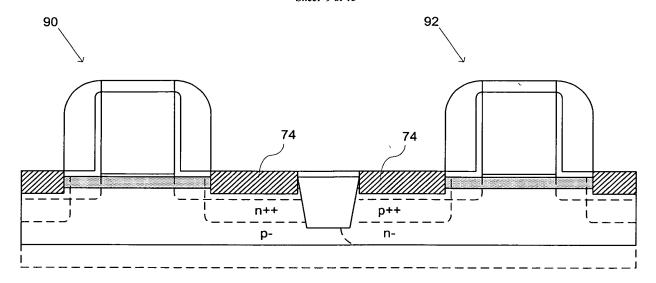


Figure 7a

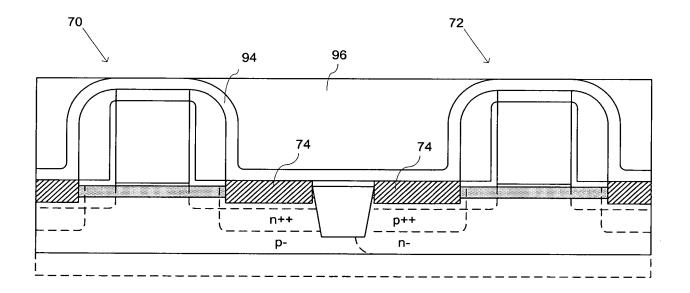


Figure 7b

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick – 039153-0688 FOLEY & LARDNER – (310) 277-2223 Sheet 10 of 13

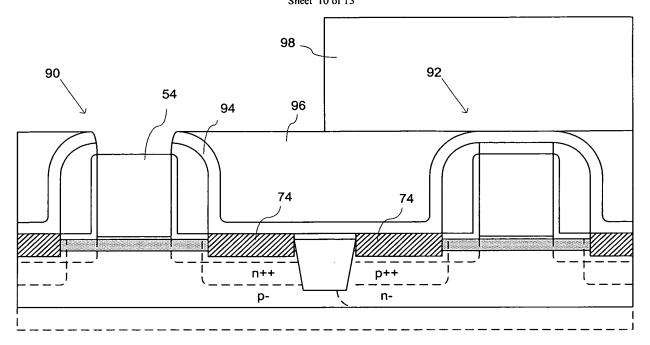


Figure 7c

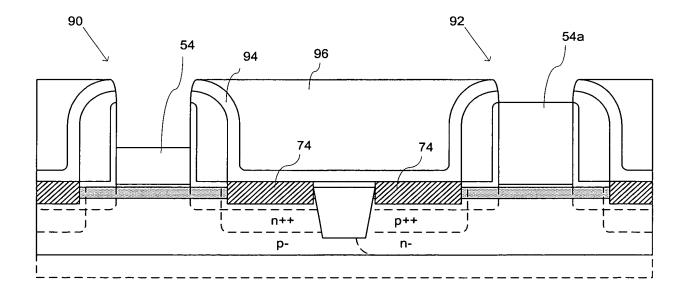


Figure 7d

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 11 of 13

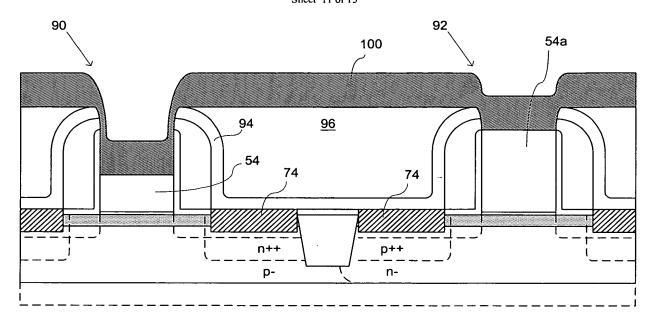


Figure 7e

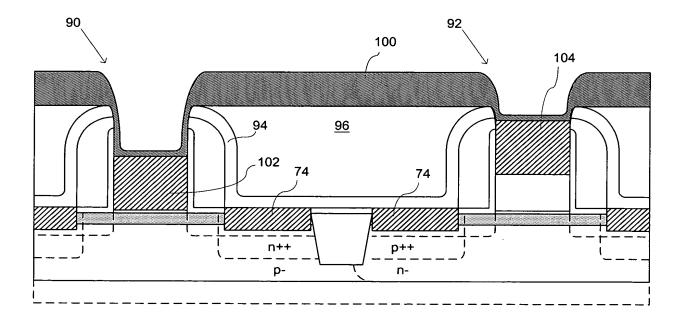


Figure 7f

Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223

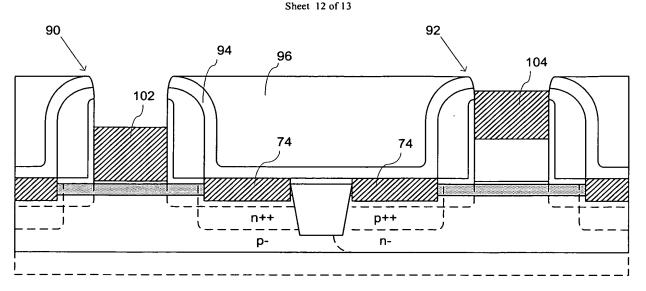


Figure 7g

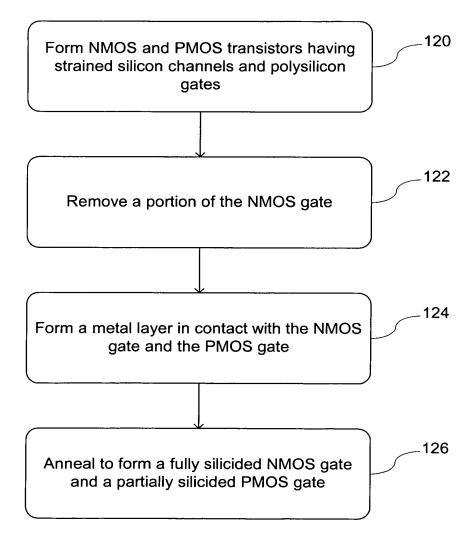


Figure 8

STRAINED SILICON MOSFETS HAVING NMOS GATES WITH WORK FUNCTIONS FOR COMPENSATING NMOS THRESHOLD VOLTAGE SHIFT

Inventors: Ihsan J. Djomehri et al. - Attorney: Ronald Coslick - 039153-0688 FOLEY & LARDNER - (310) 277-2223 Sheet 13 of 13

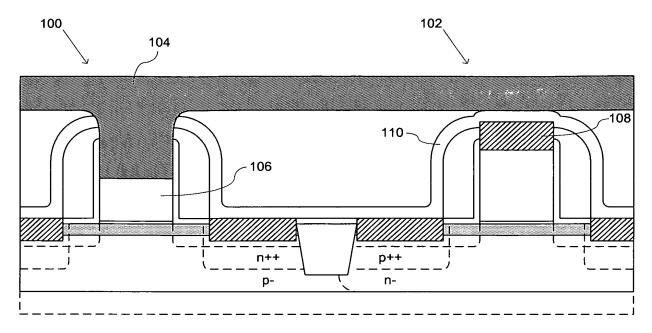


Figure 9

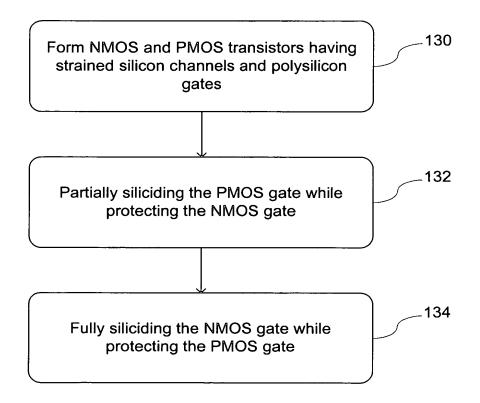


Figure 10